



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,557	06/17/2005	Grant Berent Jacobsen	01435.0210	9267
22852	7590	10/19/2006	EXAMINER	
		FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413	RABAGO, ROBERTO	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/539,557	JACOBSEN ET AL.	
	Examiner Roberto Rábago	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 24 July 2006.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1,2 and 6-34 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1,2,10-12,14-23,26-28 and 30-34 is/are rejected.

7) Claim(s) 6-9, 13, 24, 25 and 29 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____.

## DETAILED ACTION

1. Although not points of rejection, the following is noted with respect to the language of the claims.

(a) All claims require that the support recited as component (c) "has been pretreated with a source of a transition metal atom." The specific nature of how the transition metal affects the support is not specifically stated in the claims; however, the language of the specification at page 3, lines 13-16, and page 4, lines 25-26, clearly implies that the result of the pretreatment is to incorporate transition metal atom into or onto the support material. Furthermore, the pretreated support is listed as component (c), and therefore the transition metal component resulting from the support pretreatment is in addition to any transition metal present in the overall composition resulting from component (a). The claims have been examined using the interpretation that the support contains transition metal as a result of the pretreatment process recited in component (c), and the supported catalyst system comprises a second transition metal complex recited as component (a).

(b) Claim 24 recites that M is a group VIB transition metal (i.e., Cr, Mo, W); these metals do not appear to be relevant to the primary description of the recommended transition metals as recited in the general description at pages 4-9 of the specification (wherein M is a group IVB metal), and therefore the recitation of group VIB metals may be a typographical error. However, the same description of group VIB metals occurs at

page 6, line 24 of the specification, and therefore no objection or rejection on this point will be made.

***Claim Rejections - 35 USC § 102***

2. Claims 1, 2, 10-12, 14-17 and 19 rejected under 35 U.S.C. 102(e) as being anticipated by Shih (US 2003/0225225).

The reference discloses in Examples 1-3 ethylene polymerization and copolymerization comprising a catalyst made by contacting a silica support first with an iron complex, then with a Ti(II) metallocene, then with organoaluminum compound, including all claimed limitations.

3. Claims 21-23, 26, 27 and 30-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Wenzel et al. (US 2002/0119890).

The reference discloses in claims 1-10 the making of a polymerization catalyst comprising spray drying a mixture of first and second separately supported transition metal compounds, at least one of which is a metallocene, in combination with borate salt activator. Silica is stated to be the preferred support ([0280], [0282]), and gas phase conditions are stated to be preferred ([0294]).

***Claim Rejections - 35 USC § 103***

4. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shih (US 2003/0225225).

The parent claims are discussed with respect to this reference above. One of ordinary skill in the art would be motivated to use the reference process under gas phase conditions because such use is repeatedly recommended, for example at [0319].

5. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenzel et al. (US 2002/0119890).

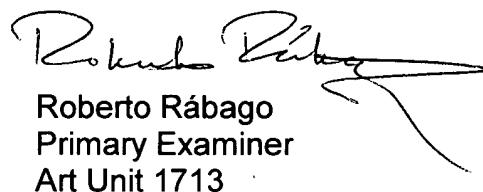
The parent claims are discussed with respect to this reference above. One of ordinary skill in the art would be motivated to use an iron-containing transition metal compound as one of the two supported catalysts because such use is recommended at [0264].

6. Claims 6-9, 13, 24, 25 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rábago whose telephone number is (571) 272-1109. The examiner can normally be reached on Monday - Friday from 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Roberto Rábago  
Primary Examiner  
Art Unit 1713

RR  
October 16, 2006